

CLAIMS

1. A molding apparatus for molding plastic components, the molding apparatus having a plurality of cavities for receiving the material to be molded, and retractable core pins entering the cavity from opposite sides thereof, at least one of the retractable core pins having an engagement member for engaging a core pin in an adjacent cavity to rigidify the pins during the molding process.
2. The molding apparatus according to claim 1, wherein at least some of said cavities are positioned one above the other to form a column of cavities, and said core pins are comprised of a plurality of first core pins entering from a first side and a second plurality of core pins entering from a second side thereof, said first and second plurality cooperating to form a passageway through a molded product.
3. The molding apparatus according to claim 2, wherein one of said first and second plurality of core pins are substantially U-shaped and the other of said first and second plurality of core pins are received in said U-shape to form a closed core pin assembly.
4. The molding apparatus according to claim 1, wherein said engagement member is defined as a rib extending longitudinally along the length of one of said core pins, and is profiled to engage, a core pin in an adjacent cavity.
5. The molding apparatus according to claim 4, wherein at least some of said cavities are positioned one above the other to form a column of cavities, and said core pins are comprised of a plurality of first core pins entering from a first side and a second plurality of core pins entering from a second side thereof, said first and second plurality cooperating to form a passageway through a molded product.
6. The molding apparatus according to claim 5, wherein ribs extend from one of said first and second plurality of core pins, and engage the other of said first and second plurality of core pins.

7. The molding apparatus according to claim 6, wherein said ribs are positioned from row to row to provide cumulative support in the vertical direction.
8. The molding apparatus according to claim 7, wherein said ribs are positioned on a lower surface of one of said first and second plurality of core pins, and engage the top surface other of said first and second plurality of core pins.
9. The molding apparatus of claim 6, wherein said molding apparatus is profiled for molding electrical connector housings, said first and second plurality of core pins defining terminal receiving passageways therethrough extending from a front face thereof, said ribs defining a slot extending from a position adjacent said front face to a position rearward into said cavity.
10. The molding apparatus according to claim 5, wherein said first and second plurality of core pins include interlocking members thereon for locking with each other to rigidify the pins during the molding process.
11. The molding apparatus according to claim 10, wherein one of said first and second plurality of core pins are substantially U-shaped and the other of said first and second plurality of core pins are received in said U-shape to form a closed core pin assembly, said interlocking members being defined by longitudinal extensions from said U-shaped walls which interlock with corresponding recesses in the other of said first and second plurality of core pins.
12. A molding apparatus for molding plastic components, the molding apparatus having a cavity for receiving the material to be molded, and retractable core pins entering the cavity from opposite sides thereof, the retractable core pins having interlocking members thereon for locking with each other to rigidify the pins during the molding process.

13. The molding apparatus according to claim 12, wherein at least some of said cavities are positioned one above the other to form a column of cavities, and said core pins are comprised of a plurality of first core pins entering from a first side and a second plurality of core pins entering from a second side thereof, said first and second plurality cooperating to form a passageway through a molded product.
14. The molding apparatus according to claim 13, wherein one of said first and second plurality of core pins are substantially U-shaped and the other of said first and second plurality of core pins are received in said U-shape to form a closed core pin assembly.
15. The molding apparatus according to claim 14, wherein said interlocking members are defined by longitudinal extensions from said U-shaped walls which interlock with corresponding recesses in the other of said first and second plurality of core pins.
16. The molding apparatus according to claim 13, wherein said engagement member is defined as a rib extending longitudinally along the length of one of said core pins, and is profiled to engage, a core pin in an adjacent cavity.
17. The molding apparatus according to claim 16, wherein at least some of said cavities are positioned one above the other to form a column of cavities, and said core pins are comprised of a plurality of first core pins entering from a first side and a second plurality of core pins entering from a second side thereof, said first and second plurality cooperating to form a passageway through a molded product.
18. The molding apparatus according to claim 17, wherein ribs extend from one of said first and second plurality of core pins, and engage the other of said first and second plurality of core pins.
19. The molding apparatus according to claim 18, wherein said ribs are positioned from row to row to provide a cumulative effect of support in the vertical direction.

20. The molding apparatus according to claim 19, wherein said ribs are positioned on a lower surface of one of said first and second plurality of core pins, and engage the top surface other of said first and second plurality of core pins.
21. A method of molding a plastic article having apertures therethrough, the method comprising the following steps:
- providing a plurality molding cavities each having a first end and a second end;
 - providing first and second core pins through respective first and second ends of said cavities;
 - supporting a support member which supports adjacent core pins in adjacent cavities;
 - inserting molten plastic material within said cavities; and withdrawing said core pins.
22. The method of claim 21, wherein said core pins are supported by providing a rib on one of said core pins, where said rib contacts an adjacent core pin.